

AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning on page 2, line 11 and ending at line 19, as follows:

With the conventional seal mechanism 100, when the impeller 110 is rotated, it has ~~previously been considered~~thought that a clearance δ (see FIG. 2) between an upper surface 101a of a bottom of the housing 101 and a lower surface 102a of the liner ring 102 becomes zero because the liner ring 102 is pressed against the housing 101. However, the clearance δ does not become zero in practical use because the handled liquid flows between inner surfaces of the housing 101 and outer surfaces of the liner ring 102 as shown by arrows E in FIG. 2. Thus, the liner ring 102 plays within the housing 101 together with the impeller 110, thereby causing noise to be generated.

Please amend the paragraph beginning on page 2, line 20 and ending at line 27, as follows:

As described above, when the impeller 110 is rotated, the bent portions 104 of the housing 101 engage as stoppers with the notches 103 of the liner ring 102 so as to prevent the liner ring 102 from being rotated together with the impeller 110 due to sliding contact between the liner ring 102 and the impeller 110, the viscosity of the handled liquid present between the liner ring 102 and the impeller 110, and other possible factors. Thus, if the liner ring 102 moves together with the impeller 110, the liner ring 102 hits the bent portions 104 ~~to thereby~~ generate~~generating~~ noise.

Please amend the paragraph beginning on page 3, line 14 and ending at line 25, as follows:

Since the seal mechanism has one ~~ore~~or more passages formed in the first surface and/or the second surface, a fluid present in a clearance between the seal member and the housing flows through the passages into the low-pressure space. Specifically, when a fluid machine is operated, a negative pressure of the low-pressure space is introduced into the passages so that the seal member is brought into close contact with the housing. Thus, the seal member is prevented from

moving in the housing. Accordingly, it is possible to prevent noise from being generated. Further, since the seal member is brought into close contact with the housing, the apparent stiffness of the seal mechanism can be improved so that the seal member is ~~hardly deformed~~not substantially deformed. Thus, it is possible to prevent noise from being generated due to deformation of the seal member.

Please amend the paragraph beginning on page 7, line 20 and ending at line 31, as follows:

FIGS. 7A through 7F show examples of the passages 15 formed in the lower surface 12a of the liner ring 12. In each example shown in FIGS. 7A through 7F, the passages 15 extend radially outward from an inner circumferential surface 12b of the liner ring ~~12~~on the low-pressure space L and do not reach an outer circumferential surface 12c of the liner ring 12. In FIG. 7A, the liner ring 12 has a plurality of linear short passages 15 arranged radially at equal intervals in a circumferential direction of the lower surface 12a of the liner ring 12. In FIG. 7B, the liner ring 12 has a plurality of V-shaped passages 15 arranged radially at equal intervals in a circumferential direction of the lower surface 12a of the liner ring 12. In FIG. 7C, the liner ring 12 has a plurality of linear short passages 15 formed at equal intervals spirally or in an inclined radial direction of the lower surface 12a of the liner ring 12.

Please amend the paragraph beginning on page 10, line 4 and ending at line 13, as follows:

The handled liquid pressurized by rotation of the impeller 13 applies forces via the liner ring 12 to the housing 11, which covers a major portion of the liner ring 12. Thus, a radially outward portion of the liner ring 12, which is brought into close contact with the upper surface 11c of the lower plate 11b, receives forces from the handled liquid together with the housing 11. Only a radially inward portion of the liner ring 12, which is not brought into contact with the upper surface 11c of the lower plate 11b, solely receives forces from the handled liquid. As a result, the apparent stiffness of the seal mechanism can be improved so that the liner ring 12 is

~~hardly deformed~~not substantially deformed. Thus, it is possible to prevent noise from being generated due to deformation of the liner ring 12.

Please amend the paragraph beginning on page 12, line 12 and ending at line 25, as follows:

As described above, each of the first seal mechanisms 10a attached to the body 23 at locations closest to the first-stage, second-stage, and third-stage impellers 13 has one or more passages formed in the lower surface 12a of the liner ring 12 or in the upper surface 11c of the lower plate 11b of the housing 11. When the centrifugal pump P is operated, the liner ring 12 is brought into close contact with the upper surface 11c of the lower plate 11b of the housing 11. Accordingly, the liner ring 12 does not play within the housing 11. Thus, it is possible to prevent noise from being generated. Further, since the liner ring 12 is brought into close contact with the housing 11, the liner ring 12 is ~~hardly deformed~~not substantially deformed. Accordingly, it is possible to prevent noise from being generated due to deformation of the liner ring 12. Furthermore, since the second seal mechanisms 10b according to the present invention are attached to the body 23 at locations closest to the sleeves 31, it is possible to prevent noise from being generated due to play of the bush within the housing 11 or deformation of the bush.

Please amend the paragraph beginning on page 13, line 1 and ending at line 10, as follows:

As described above, the seal mechanism 10 has one or more passages formed in the lower surface 12a of the liner ring 12 or in the upper surface 11c of the lower plate 11b of the housing 11. When the centrifugal pump P is operated, the liner ring 12 is brought into close contact with the upper surface 11c of the lower plate 11b of the housing 11. Accordingly, the liner ring 12 does not play within the housing 11. Thus, it is possible to prevent noise from being generated. Further, since the liner ring 12 is brought into close contact with the housing 11, the liner ring 12 is ~~hardly deformed~~not substantially deformed. Accordingly, it is possible to prevent noise from being generated due to deformation of the liner ring 12.